THE

MINING WORLD INDEX

of Current Literature

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Mining and Engineering World

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Preface

This, the third volume of THE MINING WORLD INDEX OF CURRENT LITERATURE, covers the world's literature on mining, metallurgy and kindred industries for the first six months of 1913. Like the two preceding volumes it embraces all references, of any importance, to the literature of the field it represents. But few changes have been made in this volume, but what have been made will surely meet with the approval of those who have occasion to use it, as these changes will better enable them to keep in easier touch with the progress that has been made in mining, metallurgy, etc., during the half year covered.

A notable change, or rather addition, is the publication of a list of the periodicals indexed, as well as the various schools and societies and government departments whose publications are devoted to mining or any of its allied industries. While this list does not include all publications indexed, yet there will be found a large majority of the world's leading publications. It is published for the purpose of informing the reader what periodicals have been regularly indexed, thereby saving him the trouble of hunting for the particulars of date, etc., concerning a paper which, according to his indefinite recollection, had appeared in some periodical not among the exchanges of *Mining & Engineering World.*

We still make no claim that the work is perfect, yet we are led to believe, by the numerous favorable comments that have been made, that it has considerable merit and worthy a place in the library of everyone desiring to keep in touch with all that is of interest in the great mining industry. When you consider all the valuable periodical magazines published in America, Europe, Africa and Australia on mining, mining engineering, metallurgy, mining geology, minero-chemistry, etc., the individual mineral-trade publications, such as those on coal, coking and gas producers, oils, cement, copper, iron and other metals, gems, mineral fertilizers or salines, etc., the even more valuable publications of the world's mineral-industries institutes, societies and affiliated engineering and technical societies, also the federal and state geological surveys and mining bureaus at home and abroad—not to mention new books—it becomes evident that the amount of pertinent and valuable literature available for one's use is really stupendous.

In THE MINING WORLD INDEX OF CURRENT LITERATURE this tremendous mass is thoroughly digested and classified. It is indexed by a remarkably simple and ever-ready plan which you can understand at sight. You need no explanatory key or any previous bibliographic training. Instantly by the system of cross indexing, you can put your finger on anything you may be looking for on mineral or affiliated subjects. Only a moment's time and you can find out what is being done the world over. You need no knowledge of foreign languages. THE INDEX tells you in English (as well as the original language) what all the various articles are about; such foreign articles as you find desirable you can easily have translated, or The Mining World Co. will have the same translated for you at a nominal consideration. Another valuable feature of THE INDEX is in indicating where articles have been republished in whole or in abstract in other journals—indicating, in short, practically all the different technical journals in which an article has appeared. This feature will be appreciated by those whose library facilities are rather limited, and this applies at nearly all mines and mining centers.

Contents

METALS AND METAL ORES.

CHAPTER I.

CHAPTER II.

CHAPTER III.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

NON-METALS.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

CHAPTER XI.

MINES AND MINING.

CHAPTER XII.

CHAPTER XIII.

MILLS AND MILLING.

CHAPTER XIV.

CHEMISTRY AND ASSAYING.

CHAPTER XV.

METALLURGY.

CHAPTER XVI.

POWER AND MACHINERY.

CHAPTER XVII.

MISCELLANEOUS.

CHAPTER XVIII.

Publications Indexed

Including Periodicals, Books and Transactions, Bulletins, Etc., of Schools, Societies and Government Bureaus.

A

Acetylene Journal, Chicago.
Allgemeine österreichische Chemiker und Techniker-Zeitung.
American Ceramic Society.
American Chemical Society.
American Electrochemical Society.
American Fertilizer, Philadelphia.
American Institute of Chemical Engineers.
American Institute of Electrical Engineers.
American Institute of Mining Engineers.
American Iron & Steel Institute.
American Journal of Science, New Haven, Conn.
American Metal Society.
American Metallurgical Society.
American Mining Congress.
American Museum of Safety, New York.
American Peat Society.
American Railway Engineering Association.
American Society of Engineering Contractors.
American Society of Mechanical Engineers.
American Wood Preservers' Association.
Anales de la Sociedad Cientifica Argentina.
Annales de Mines, Paris.
Annales des Mines de Belgique, Brussels, Belgium.
American Portland Cement Manufacturers.
Association of Mining Electrical Engineers, England.
Association of Railway Electrical Engineers.
Australasian Coal & Iron Trade Review, Sydney.
Australasian Institute of Mining Engineers.
Australian Mining Standard, Melbourne.

B

Berg und Hüttenmännische Rundschau, Kattowitz, Germany.
Berg & Hüttenm, Jahrb. Leoben-Pribram.
Bergwirtschaftliche, Mitteilungen.
Birmingham Metallurgical Society, England.
Bitumen, Wiesbaden, Germany.
Black Diamond, Chicago.
Braunkohle.
Brick & Clay Record, Chicago.
British Columbia Bureau of Mines.
British Columbia Mining Exchange & Engineering News, Vancouver, B. C.
British Columbia Mining & Engineering Record, Victoria, B. C.
British Guiana Institute of Mines and Forests.
Bulletin of the Imperial Institute, London.
Bulletin of the Pan-American Union, Washington, D. C.

C

California Miners' Association.
California State Mining Bureau.
Canada Department of Mines, Ottawa.
Canada Geological Survey.
Canadian Engineer, Toronto.
Canadian Mining Institute.
Canadian Mining Journal, Toronto.
Cassier's Magazine, New York.
Cement, New York.
Cement Age, New York.
Centralblatt der Hütten & Walzwerke, Berlin, Germany.
Chemical Engineer, Chicago.
Chemical, Metallurgical & Mining Society of South Africa, Johannesburg.
Chemiker-Zeitung, Cöthen, Germany.
Chemiker & Techniker-Zeitung, Vienna, Austria.
Chemist-Analyst.
Cleveland Engineering Society, Cleveland, Ohio.
Coal Age, New York.
Coal Mining Institute of America.
Coal Trade Bulletin, Pittsburgh.
Coal & Coke Operator, Pittsburgh.
Colliery Engineer, Scranton, Pa.
Colliery Guardian, London.
Colorado Scientific Society.
Colorado State Bureau of Mines.
Columbia School of Mines Quarterly, New York.
Compressed Air Magazine, New York.
Connecticut State Geological & Natural History Survey.
Cornwall Mining Association and Institute, Cornwall, England.
Cuerpo de Ingenieros de Minas del Peru, Lima, Peru.

D

Der Bergbau, Gelsenkirchen, Germany.
Der Erzbergbau, Berlin, Germany.
Der Kohleninteressent, Teplitz, Bohemia.
Deutsche Bergwerks Zeitung, Essen-Ruhr, Germany.
Deutsche Technik, Germany.
Die Fördertechnik, Wittenberg, Germany.
Domestic Engineering, Chicago.

E

Economic Geology, Urbana, Ill.
Edinburgh Geological Society, Edinburgh, Scotland.
Eisen Zeitung, Berlin, Germany.
El Economista Mexicana, Mexico City.
Electrical Engineer, London.
Electrical Review, London.
Electrical Review & Western Electrician, Chicago.
Electrician, London.
Electrotechnik & Maschinenbau, Vienna, Austria.
Elektrochemische Zeitschrift, Berlin, Germany.
El Paso Mining Journal, El Paso, Tex.
Engineering Association of New South Wales, Sydney, Australia.
Engineering Digest, New York.
Engineering, London.
Engineering Magazine, New York.
Engineering News, New York.
Engineering Record, New York.
Engineering Review, London.
Engineering & Contracting, Chicago.
Engineering & Mining Journal, New York.
Engineers' Club, Philadelphia.
Engineers' Society of Eastern Pennsylvania.
Engineers' Society of Western Pennsylvania.
English Ceramic Society, England.
Excavating Engineer, Milwaukee, Wis.
Faraday Society, London.

F

Federated Malay States Mines Report, Singapore.
Ferrum, Aachen, Germany.
Florida State Geological Survey, Tallahassee.
Franklin Institute, Philadelphia, Pa.

G

General Electric Review, Schenectady, N. Y.
Geological Society of South Africa.
Geological Society of Tokyo, Japan.
Geological Society of Washington, Washington, D. C.
Georgia Geological Survey, Atlanta.
Giesserei Zeitung, Berlin, Germany.
Glückauf, Essen, Germany.
Great Britain Geological Survey.

I

Idaho State Inspector of Mines.
Ideal Power, Chicago.
Illinois State Geological Survey, Urbana, Ill.
Illuminating Engineering Society.
India Geological Survey, Calcutta.
Indian & Eastern Engineer, Calcutta.
Indiana Department of Geology & Natural Resources, Indianapolis.
Industrial Advocate, Halifax, Nova Scotia.
Industrial Engineering, New York.
Informaciones y Memorias, Boletin de la Sociedad de Ingenieros, Lima, Peru.
Informes y Memorias del Instituto Mexicana, de Mines of Metalurgia, Mexico.
Ingeneria, Spain.
Institute of Engineers & Ship Builders, Scotland.
Institute of Marine Engineers, England.
Institution of Mining Engineers, London.
Institution of Mining & Metallurgy, London.
International Association for Testing Materials.
International Congress for Radiology & Electrology.
International Railway Fuel Association.
Iowa Engineer, Ames, Iowa.
Iowa Geological Survey.
Iowa State College Engineering Experiment Station, Ames.
Iron Age, New York.
Iron Trade Review, Cleveland, O.
Iron & Coal Trades Review, London.
Iron & Steel Institute, London.

J

Journal du Four Electrique et de l'Electrolyse, Paris.
Journal du Petrole, Paris.
Journal of Electricity, Power & Gas, San Francisco.
Journal of Geology, Chicago.
Journal of Industrial & Engineering Chemistry, Easton, Pa.

K

Kali, Erz & Kohle, Halle, Germany.
Kali, Halle, Germany.
Kansas University Geological Survey.
Kentucky Geological Survey.
Kentucky Mining Institute.
Kohle & Erz, Kattowitz, Germany.

L

La Metallurgia Italiana, Milan, Italy.
La Metallurgie du Nord, Maubeuge, France.
Lackawanna Chemical Society, Scranton, Pa.
Lake Superior Mining Institute, Ishpeming, Mich.
L'Echo des Mines de la Métallurgie, Paris, France.
Le Pétrole, Paris, France.
Le Phosphate, Paris.
Levant Trade Review.
Liverpool Geological Association, Liverpool, England.
Los Angeles Chamber of Mines & Oil, Los Angeles, Cal.
Louisiana Geological Survey, Baton Rouge.
L'Opinion Financiere, Paris, France.

M

Malayan Tin & Rubber Journal, Ipoh-Perak, F. M. S.
Manchester Association of Engineers, Manchester, England.
Manchester Mining & Geological Society, England.
Mechanical World, Manchester, England.
Metall und Erz, Halle, Germany.
Metallurgia Italiana, Italy.
Metallurgical & Chemical Engineering, New York.
Metallurgie, Halle, Germany.
Mexican Institute of Mining & Metallurgy, Mexico.
Mexican Mining Journal, Mexico City.
Michigan Geological Survey, Lansing, Mich.
Midland Institute of Mining, Civil & Mechanical Engineers, England.
Mines & Methods, Salt Lake.
Mines & Minerals, Scranton, Pa.
Mining Engineering, London.
Mining Institute of Scotland, Hamilton.
Mining Journal, London.
Mining Magazine, London.
Mining Science, Denver, Colo.
Mining Society of Nova Scotia, Halifax.
Mining World & Engineering Record, London.
Mining & Engineering Review, Melbourne, Australia.
Mining & Engineering World, Chicago.
Mining & Geological Institute of India, Calcutta.
Mining & Metallurgical Society of America.
Mining & Scientific Press, San Francisco.
Minnesota Geological & Natural History Survey.
Mississippi State Geological Survey.
Missouri Bureau of Geology & Mines, Rolla.
Missouri Geological Survey.
Missouri School of Mines.
Montan-Zeitung für Oesterreich-Ungarn und die Balkanländer, Graz, Austria.
Montana Inspector of Mines' Reports, Helena.
Montanistische Rundschau, Berlin, Germany.

N

National Academy of Sciences.
National Association of Colliery Managers, London.
National Association of Stationary Engineers.
National Geographic Magazine, Washington, D. C.
National Lime Manufacturers' Association, Riverton, Va.
Natural Gas Journal, Buffalo, N. Y.
New Jersey Geological Survey, Trenton.
New South Wales Engineering Association, Sydney.
New York & Eastern Pennsylvania Coal Merchants' Association.
New Zealand Geological Survey, Wellington.
New Zealand Institute, Wellington.
North Carolina Geological Survey, Chapel Hill.
North of England Institute of Mining & Mechanical Engineers, Newcastle-on-Tyne, England.
North Staffordshire Institute of Mining & Mechanical Engineers, Stoke-on-Trent, England.
Northwest Mining & Metallurgy, Spokane, Wash.
Nova Scotia Mining Society.

O

Oil Age, Los Angeles, Cal.
Oklahoma Geological Survey, Norman.
Ontario Bureau of Mines, Toronto.
Oxford Opthalmological Congress, England.

P

Pacific Mining Journal, Seattle, Wash.
Pahasapa Quarterly, Rapid City, S. D.
Pan American Union, Washington, D. C.
Pennsylvania Mines Department, Harrisburg.
Pennsylvania Topographic & Geologic Survey, Harrisburg.
Peru Today, Lima.
Petroleum, Berlin, Germany.
Petroleum World, London.
Pfalz-Saarbrücker Bezirksvereins deutscher Ingenieure, Germany.
Philadelphia Engineers' Club, Philadelphia.
Philippine Journal of Science, Manila.
Power, New York.
Practical Electricity & Engineering, Chicago.
Practical Engineer, Chicago.

Q

Quebec Bureau of Mines, Quebec.
Quebec Department of Colonization, Mines & Fisheries, Quebec.
Queensland Geological Survey, Brisbane.
Queensland Government Mining Journal, Brisbane.

R

Radium, Pittsburgh.
Rassegna Mineraria Metallurgica e Chimica, Turin, Italy.
Resources of Tennessee, Nashville.
Revue de Metallurgie, France.
Revue des Matériaux de Construction et de Travaux Publics, Paris.
Rhodesia (Southern) Mines Department, Salisbury.
Rhodesian Chamber of Mines, Bulawayo.
Rock Products, Chicago.
Resoconti delle Riunioni Asso. Sarda, Italy.
Revista Minera Metallurgica y de Ingenieria, Madrid, Spain.
Revista Minera e Industria de Linares, Spain.
Revue d'Electrochimie at d'Electrometallurgy, Paris, France.
Revue Noire, Paris, France.
Revue Practique des Industries Metallurgiques, Paris, France.
Rigasche Industrie Zeitung, Riga, Russia.
Royal Geological Society of Cornwall, England.
Royal Society of Arts Journal, London.

S

Salt Lake Mining Review, Utah.
Science & Art of Mining, Wigan, England.
Sibley Journal of Engineering, Ithaca, N. Y.
Smithsonian Institution, Washington, D. C.
Société Amicale des Anciens Élèves de l'École des Maîtres-Mineurs de Douai, France.
Société Chimique de Belgique, Brussels, Belgium.
Sociéti des Ingénieurs Civils de France.
Society of Arts, London.
Society of the Chemical Industry, London.
Society of the Chemical Industry, New York.
South Africa Engineering, London.
South African Association of Engineers, Johannesburg.
South African Institute of Electrical Engineers.
South African Mining Journal, Johannesburg.
South Dakota Engineering Society.
South Dakota Inspector of Mines, Sioux City, S. Dak.
South Dakota School of Mines, Rapid City, S. Dak.
South Staffordshire & Warwickshire Institute of Mining Engineers, Birmingham, England.
South Wales Institute of Engineers, Cardiff, Wales.
Staffordshire Iron & Steel Inst'tute, England.
Stahl & Eisen, Düsseldorf, Germany.
Südwestdeutsche Industrie Zeitung, Saarbrücken, Prussia.

T

Technische Blätter, Essen-Ruhr, Germany.
Technische Centralanzeiger, Germany.
Tech. du Nord de la France.
Tennessee State Geological Survey, Nashville.
Tonindustrie Zeitung, Berlin, Germany.
Transvaal Chamber of Mines, Johannesburg.

U

United States Bureau of Mines, Washington, D. C.
United States Bureau of Standards, Washington, D. C.
United States Bureau of Standards.
United States Consular Reports, Washington, D. C.
United States Department of Agriculture, Washington, D. C.
United States Department of Commerce and Labor, Washington, D. C.
United States Geological Survey, Washington, D. C.
University of Illinois, Engineering Experiment Station, Urbana.
University of Texas, Austin.
University of Texas Mineral Survey.

V

Vancouver, B. C., Chamber of Mines, Vancouver, B. C.
Victoria Chamber of Mines, Melbourne, Australia.
Virginia Geological Survey, Charlottesville.

W

West Australian Mining, Building & Engineering Journal, Kalgoorlie.
West of Scotland Iron & Steel Institute, Glasgow.
West Virginia Geological Survey, Morgantown.
Western Australia Department of Mines, Perth.
Western Australia Geological Survey, Perth.
Western Australia Institution of Engineers, Perth.
Western Society of Engineers, Chicago.
Wisconsin Engineer, Madison.
Wisconsin Geological & Natural History Survey, Madison.
Wood Preservers' Association, Chicago.
Wyoming Geological Survey, Cheyenne.

Z

Zeitschrift der Oberschlesischen Berg & Hüttenmannischen Verein, Kattowitz, Germany.
Zeitschrift des Internationalen Vereines der Bohringenieure & Bohrtechniker, Vienna, Austria.
Zeitschrift des Zentral Verbandes der Bergbau Betriebsleiter, Dux, Bohemia.
Zeitschrift für des Berg, Hütten & Salinen Wesen in preussischen Staate, Berlin, Germany.
Zeitschrift für das gesamte Schiess & Sprengstoffwesen, Munich, Germany.
Zeitschrift für Elektrochemie, Halle, Germany.
Zeitschrift für praktische Geologie, Berlin.
Zentral - Blatt Kunstdünger Industrie, Mannheim, Germany.

Explanations and Abbreviations

The entries show:

(1) The author of the article.

(2) A dash if the name is not apparent.

(3) The title, in italics, of the article or book. Titles in foreign languages are ordinarily followed by a translation or explanation in English.

(4) When the original title is insufficient a brief amplification is added. This addition is in brackets.

(5) The journal in which the article appeared; also the date of issue, and the page on which the article begins.

(6) Approximate number of words. Illustrated articles are indicated by an asterisk (*).

(7) The price. Articles mentioned will be supplied to subscribers of Mining and Engineering World and others at the prices quoted. Subscribers, however, will be allowed a discount of 5 cts. if the price of the article exceeds 50 cts.

Subjoined is a list of the commoner abbreviations found in this work. They are used chiefly in the names of periodicals, and of associations. The abbreviations will be found easily intelligible at sight, and are what they purport to be—self-explanatory abbreviations, not symbols.

Acad.—Academy; Académie; Accademia.
Afr.—Africa; African.
Akad.—Akademie.
Allgm.—Allgemeine.
Amer.—American.
Archts.—Architects.
Asso.—Association; Associazione.
Ber.—Berichte.
Bol.—Boletin; Boletim; Bollettino.
Bull.—Bulletin.
Bur.—Bureau.
Centralbl.—Centralblatt.
C-R.—Compte-Rendu; Resoconti.
Chem'l.—Chemical.
Chem'y.—Chemistry.
Coll'y.—Colliery.
Congr.—Congress.
d.—des (French and German).
Dept.—Department.
Deu.—Deutsche, etc.
Electr.—Electrical.
Engg.—Engineering.
Engr.—Engineer.
Engrs.—Engineers.
f.—for; für.
Gazt.—Gazette.
Geol.—Geological.
Geol'y.—Geology.
Ges.—Gesellschaft.
Gov't.—Government.
Hüttenm.—Hüttenmännische.
Ind'l.—Industrial; Industriel; Industrielle.
Ingr.—Ingenieure, Ingenieros.
Inst.—Institute; Institut; Instituto.
Instn.—Institution.
Jahresber.—Jahresbericht.
Jahrb.—Jahrbuch.
Jnl.—Journal.
Mag.—Magazine.
Mechl.—Mechanical.
Met'g'l.—Metallurgical.
Met'gy.—Metallurgy.
Mex.—Mexican.
Mittlngn.—Mitteilungen.
Mnfrrs.—Manufacturers.
Mng.—Mining.
Oestr.—Oesterreichische; Oesterreich.
Proc.—Proceedings.
Quar'ly.—Quarterly.
Rev.—Review; Revue; Revista.
Sci.—Science; Sciences.
Scient.—Scientific.
Soc.—Society; Société; Società.
Suppl.—Supplement; Supplementary.
Trans.—Transactions.
Ver.—Verein.
Verb.—Verband.
Verh.—Verhandlungen.
Zentralbl.—Zentralblatt.
Ztg.—Zeitung.
Zts.—Zeitschrift.

PART I.

ORES AND MINERAL PRODUCTS.

METALS AND METAL ORES.

CHAPTER I.

GOLD, SILVER AND PLATINUM.

GOLD

Gold Fields and Mining

Adams, Geo. I. and Pratt, W. E.—*Mineral Resources of Luzon, Philippine Islands.* (Abstract from Phil. Jnl. Com., Dec.,1912). —Mg. & Eng. World, Jan.4,1913; p. 14; 1250 w; 10c.

Alexander, D. C., Jr.—*Mining in the Federated Malay States.*—Washington, D. C.; Special Agents Series No. 59, Bureau of Manufactures, Department of Commerce & Labor; 25 pp*.

Allen, Carl A.—*Lecture Notes in Placer Mining.*—Colo. Sch. of Mines Mag., Feb., 1913; p. 29; 2300 w; 35c.

Ball, Sydney H.—*Mining in the Belgian Congo in* 1912.—M. & S. P., April19,1913; p. 576; 5000 w*; 20c.

Bancroft, Howland.—*Mining on the West Coast of South America.*—M. & S. P., Jan. 25,1913; p. 173; 4000 w*; 20c.

Bradshaw, Frederick.—*Operation of the Tonopah Belmont Mine, Nevada.* (Abstract of annual report).—M. & S. P., May 17,1913; p 730; 2800 w*; 20c.

Brady, Austin C.—*Mining in Mexico in* 1912.—Mg. & Eng. World, Jan.25,1913; p. 233; 10,000 w; 25c.

Brewer, W. M.—*Winter Work on the Kenai Peninsula.*—M. & S. P., May17,1913; 1800 w; 20c.

Brooks, Alfred H.—*Review of Mining in Alaska in* 1912 (advance Survey report).—Mg. & Eng. World, Jan.25,1913; p. 193; 4500 w; 25c.

Cartwright, Cosmo T.—*The Production of Copper, Gold, Lead, Nickel, Silver, Zinc and Other Metals* (Aluminum, Antimony, Cobalt, Quicksilver, Molybdenum, Platinum, Palladium, Tin and Tungsten).—Ottawa, Ontario; Advance Chapter of Annual Report on Mineral Production of Canada during 1911, Canada Department of Mines, Mines Branch; 85 pp.

Cohn, A. G.—*Review of Mining in Arizona in* 1912.—Mg. & Eng. World, Jan.25, 1913; p. 218; 1200 w; 10c.

Colburn, E. A.—*Mine and Mill Equipment at the Ajax Mine, Mexico.*—Mex. Mg. Jnl., May.1913; p 231; 3000 w*; 25c.

Conly, Frank.—*The Mount Morgan Mine, Queensland.*—E. & M. J., April26,1913; p 833; 1100 w*; 25c.

Copenharve, Charles.—*Review of Mining Operations in Montana in* 1912.—Mg. & Eng. World, Jan.25,1913; p. 175; 6000 w; 25c.

Cranston, Robert E.—*Gold Dredging in* 1912.—E. & M. J., Jan.11,1913; p. 113; 1800 w; 25c.

Cutler, H. C. — *Rochester, Nevada's Newest Boom Camp.*—E. & M. J., Feb.15, 1913; p 355; 1000 w*; 25c.

Deichman, Carl F.—*Summary of Mining Progress in Japan in* 1911. (U. S. Consular report; abstract).—Mg. & Eng. World, Dec. 28,1912; p 1182; 1200 w; 10c.

Denis, Theo C.—*Mineral Production of Quebec in* 1912. (Paper read before Ottawa meeting Canadian Mg. Inst.).—Can. Mg. Jnl., March15,1913; p 176; 1500 w; 35c.

Denis, T. C.—*The Mining Industry in the Province of Quebec.*—Can. Mg. Jnl., Jan.1, 1913; p. 5; 1500 w*; 25c.

Dinwiddie, G. I.—*Notes on the Urique District, Mexico.*—Mex. Mg. Jnl., April, 1913; p 192; 2200 w; 25c.

Eddy, L. H.—*An Attempt to Restrict Gold Dredging in California.*—E. & M. J., March 22,1913; p 626; 750 w; 25c.

Eddy, Lewis H.—*Natoma No.* 10, *an All-Steel Dredge, California.*—E. & M. J., May 31,1913; p 1079; 4500 w*; 25c.

Eddy, Lewis H.—*Some New Gold Dredges in Alaska.*—E. & M. J., Jan.25,1913; 1500 w*; 25c.

Fanning, Paul R., and Eddingfield, F. T. —*The Black Sands of Paracale, Philippines.* —Phil. Jnl. Sci., Aug.,1912; p. 213; pp 40*; 65c.

Flagg, Arthur L.—*Buffalo Hump Mining District, Idaho.*—Mg. & Eng. World, April 26,1913; p 813; 2000 w*; 10c.

Gascoyne, Rowland.—*Mining in South Africa in* 1912.—Mg. & Eng. World, Jan.25, 1913; p. 228; 7500 w; 25c.

Gascoyne, Rowland.—*Selective Mining on the Rand.*—Mg. & Eng. World, May31,1913; p 1041; 1800 w; 10c.

Gascoyne, Rowland.—*The City Deep Mine on the Witwatersrand.*—Can. Mg. Jnl., May 15,1913; p 297; 3000 w*; 35c.

Gibson, Thos. W.—*The Year in Ontario.* (Reviews mining operations in 1912).—Can. Mg. Jnl., Feb.15,1913; p. 45; 2000 w; 25c.

Graves, W. H.—*Progress in Colorado Mining and Milling.*—Mg. & Eng. World,

March29,1913; p 611; 2000 w*; April12, 1913; p 713; 1800 w*; 20c.

Grothe, A., and Salazar, S. L.—*La Industria Minera de Mexico Tomo I: Estados de Hidalgo y de Mexico*; [The mining industry of Mexico Vol. I: The states of Hidalgo and Mexico. Geol., mines milling, [illegible], gold, silver, etc.].—Mexico City, 1912; 204 pp*; $1.50.

Grunsky, C. E., Jr.—*Cost of Working Thin Veins at the Standard Con. Mine.*—M. & S. P., May31,1913; p 809; 2600 w*; 20c.

Hafer, Claud.—*A North Carolina Mining Enterprise.*—M. & S. P., May17,1913; p [illegible]; 2800 w*; 20c.

Hafer, Claud.—*Review of Mining in North Carolina in 1912.*—Mg. & Eng. World, Jan.25,1913; p. 216; 1200 w; 25c.

Hall, Frank.—*Review of Mining Operations in Colorado in 1912.*—Mg. & Eng. World, Jan.25,1913; p. 183; 5000 w; 25c.

Hautpick, E. de.—*Gold Mining in the Urals.*—Mg. Jnl., London, April19,1913; p [illegible]; 400 w; 35c.

Heikes, Victor C.—*Utah's Mine Output in 1912.* (Advance chapter Mineral Resources U. S.).—Mg. & Eng. World, May24,1913; p 1007; 1200 w; 10c.

Hibbert, E.—*Methods and Costs at the Mother Lode Mine, B. C.*—E. & M. J., March 22,1913; p 599; 3000 w*; 25c.

[illegible], Ben.—*Mining in Ontario in 1912.*—Mg. & Eng. World, Jan.25,1913; p. 226; 3500 w; 25c.

[illegible], H. W.—*Review of Mining in Idaho in 1912.*—Mg. & Eng. World, Jan.25, 1913; p. 207; 2500 w; 25c.

[illegible], E.—*Mining in British Columbia in 1912.*—Mg. & Eng. World, Jan.25,1913; 5000 w; 25c.

Janin, Charles.—*Proposed Regulation of Gold Dredgers.*—M. & S. P., March8,1913; p [illegible]; 4000 w*; 15c.

Janin, Charles.—*Gold Dredging in 1912.*—M. & S. P., Jan.4,1913; p. 14; 1500 w*; 15c.

Jimenez, Carlos P.—*Estadistica Minera del Peru en 1911*; [1911 mineral statistics of Peru].—Boletin del Cuerpo de Ingenieros de Minas del Peru, No. [illegible], 1913; 80 pp; 50c.

Jutson, J. T.—*The [illegible] Gold Field, W. Australia.*—W. A. Mg. & Eng. Jnl., [illegible],1912; p 12; 4000 w; 35c.

[illegible], O.—*Die Mineral Schätze des [illegible]*; [The mineral wealth of the [illegible]].—[illegible] Blätter, Feb.15, 1913; p. [illegible]; [illegible] w; [illegible].

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CHAPTER III.

Lead and Zinc.

LEAD

Mines, Mining, Geology

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CHAPTER V.

Alloys, Antimony, Chromium, Manganese, Molybdenum, Titanium, Tungsten, Uranium, Vanadium.

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CHAPTER VI.

Tin, Nickel, Cobalt, Aluminum.

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CHAPTER VII.

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CADMIUM

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Bonney, Wilbert L.—*Mineral Resources of San Luis Potosi, Mexico.* (Consular report).—Mg. & Eng. World, April12,1913; p 719; 2000 w; 10c.

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Venator, Wilhelm.—*Ueber die Erzeugung Oesterreichs an Eisenerz, Manganerz, Roheisen und Metallen;* [Austria's production of iron ore, manganese ore, pig iron and metals].—See Iron.

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See Platinum Metals.

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Berndt, G.—*Las Substancias Radioactivas en la Atmósfera de Buenos Aires, Su Cantidad y la Cuota del Torio;* [The radio-active substances in the atmosphere of Buenos Aires, their quantity and the quota of thorium].—Anales Soc. Cien. Argentina, Sept.,1912; p 161; 24 pp*; $1.75.

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Glaser, Fritz.—*Ueber die Gewinnung radioaktiver Körper aus Thorium;* [On the extraction of radio-active substances from thorium].—Chemiker-Ztg., April19,1913; p 477, 1600 w; 30c.

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Krapf, Emile F.—*Recent Investigations on the Use of Radium for Malignant Diseases.*—Radium, May,1913; p 3; 5 pp; 25c.

Parsons, Charles L.—*The Uranium and Radium Situation.*—Mg. & Eng. World, May10,1913; p 909; 1800 w; 10c. M. & S. P., May17,1913; p 741; 2000 w; 20c. Met. & Chem. Engg., May,1913; p 275; 1000 w; 35c. S. L. Mg. Rev., May15,1913; 1800 w*; 25c. Mg. Sci., June,1913; p 325; 2000 w; 35c.

Rickard, Forbes.—*Pitchblende from Quartz Hill, Gilpin County, Colorado.*—M. & S. P., June7,1913; p 851; 4000 w*; 20c.

Step, Josef.—*Ueber den Einfluss der Gesteinsbeschaffenheit auf die Radioaktivität der Joachimsthaler Grubenwässer;* [On the influence of rock constitution on the radio-activity of the Joachimsthal mine waters] (Abstract of paper presented at the 6th International Congress for Radiology and Electrology, at Prague).—Chemiker-Ztg., Dec.17,1912; p 1470; 350 w; 30c.

Stoklasa, Dr.—*Die Wunder der Radiologie;* [The wonders of radiology] (Abstract of paper presented at 6th International Congress for Radiology and Electrology, at Prague).—Chemiker-Ztg., Dec.17,1912; p 1465; 775 w; 30c.

Verschaffelt, J. E.—*L'Analyse des Gaz par les Rayons Positifs;* [The analysis of gas by positive rays].—Bull. Soc. Chemique de Belgique, Feb.,1913; p 521; 2000 w; 75c.

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Ihssen, Georg.—*Ueber die Bestimmung der Magnesia in Mineralsalzen;* [On the determination of the magnesia in mineral salts].—Kali, Dec.15; p 609; 2500 w; 35c.

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Thompson, Francis A.—*Ore Treatment in the Republic District, Washington.*—Mg. Sci., Feb.6,1913; p. 87; 1800 w*; 20c.

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Wood, Henry E.—*Concentration of Telluride Ores.*—E. & M. J., May3,1913; p 885; 2000 w; 25c.

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———. *The Technology of Hydro-Silicates, Silicates and Bricks.*—Wisconsin Engr., Feb.,1913; p 194; 2000 w; 30c.

NON-METALS.

CHAPTER VIII.

Fuels and By-Products.

COAL

Coal Fields and Mining

Adams, Geo. I. and Pratt, W. E.—*Mineral Resources of Luzon, Philippine Islands.* (Abstract from Phil. Jnl. Com., Dec.,1912). —Mg. & Eng. World, Jan.4,1913; p. 14; 1250 w; 10c.

Allard, A. F.—*Concrete in Mine Construction.* (Abstract of paper read at fuel conference, Urbana, Ill.).—Coll'y Engr., June,1913; p 623; 2000 w; 35c. Coal & Coke Op., May22,1913; p 73; 2200 w; 20c.

Archbald, Hugh.—*Machine Mining in Anthracite Mines.*—Coll'y Engr., April,1913; p 471; 3500 w*; 35c.

Aron, A.—*The Fighting of Fires in Mines* (in France); (abstract from Annales de Mines).—Aust. Coal & Iron Trades Rev., Dec.2,1912; p. 163; 1400 w; 35c.

Ashton, Sir Ralph Percy.—*The Coal Industry of India.*—Colliery Guard., Feb.14, 1913; p 329; 3000 w*; Feb.21,1913; p 386; 2500 w*; 70c.

Aufhauser, Dr.—*Die specifischen Eigenschaften und Unterschiede der festen und flüssigen Brennstoffe und ihre technische Bedeutung;* [The specific properties and differences of the solid and liquid fuels and their technical significance] — Glückauf, April19,1913; p 601; 7000 w*; 50c.

Ball, Sydney H.—*Mining in the Belgian Congo in* 1912.—M. & S. P., April19,1913; p 576; 5000 w*; 20c.

Bartholomew, G. P.—*Purchased Power for Coal Mines.*—Coal Age, Dec.14,1912; p. 827; 2500 w; 20c.

Beard, J. T.—*Reducing Ventilation When Firing.*—Coal Age, Jan.4,1913; p. 3; 600 w; 25c.

Beck, R.—*Microscopy in Economic Geology.* (Translation of an address delivered at Royal School of Mines by the author on the occasion of his inauguration as rector).— E. & M. J., May31,1913; p 1087; 4500 w; 25c.

Beeston, A.—*Surface-Condensing Steam Plant.* (Paper read before Midland Branch of Nat. Assn. Coll'y Engrs.).—Ir. & C. Tr. Rev.; p 328; 3000 w*; 35c.

Beers, C. W.—*Central Station Power for Coal Mines.*—Proceedings Am. Inst. Elect. Engrs., April,1913; p 835; pp 11; $1. El. Rev. & W. El., April 26,1913; p 848; 4000 w; 25c.

Bennett, A.—*The Illinois Coal Field.*—Coal Age, April12,1913; p 558; 4000 w*; 20c.

Berger, L.—*Chinas Bergbau, speziellz seine Kohlen- und Eisen-industrie;* [China's mining, especially its coal and iron industry].—Technische Blätter, Dec.7,1912; p. 387; 2800 w*; Dec.14, p. 393; 1500 w*; 70c.

Beveridge, David.—*Supporting Underground Roadways.* (Abstract of paper read before Scottish Branch Nat. Assn. of Coll'y Mgrs.).—Mg. Engg., London, May,1913; p 79; 2000 w*; 35c.

Blackett, W. C.—*The Combustion of Oxygen and Coal Dust in Mines.* (Abstract of paper read before North of England Inst. Mg. & Mech. Engrs.).—Ir. & Coal Tr. Rev., London, April18,1913; p 615; 5000 w; 35c.

Bock, Fr.—*Die Eisenerze des Staates New York;* [The iron ores of New York state].—Erzbergbau; Dec.15,1912; p 385; 2000 w; 25c.

Boileau, John W.—*Prospective Life of the Pittsburgh Coal Seam.* (Address delivered before Coal Mg. Inst. Am.; abstract). —Coal & Coke Op., Dec.26,1912; p. 403; 1750 w; 25c.

Booth, W. H.—*Too Much Ventilation. Importance of the Amount of Moisture in the Ventilating Current, and the Methods That Have Been Employed for Its Control.* —Col. Eng., March,1913; p. 419; 750 w; 35c.

Botting, D. C., and Wolflin, H. M.—*Accidents in the Coal Mines of Washington.*— Mg. & Eng. World, Jan.18,1913; p. 109; 650 w; 10c. Coal Tr. Bull., April1,1913; p 43; 2500 w; 25c.

Bowen, D.—*Experiments on Safety Devices in Connection with Electrical Machinery for Coal Mines* (Abstract of lecture before a joint meeting of the Yorkshire Branches of the Natnl. Asso. of Colliery Mgrs. and the Asso. of Mg. Elect. Engrs.). —Iron & Coal Trades Rev., Feb.14,1913; 5300 w; 35c.

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Breyhan, Bergassessor. — *Wiederbelebungsvorrichtungen für den Grubenrettungsdienst;* [Resuscitation apparatus for mine-rescue service].—Glückauf, April26 and May3,1913; 10,500 w*; p 645; 5900 w*; 50c.

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Burroughs, Wilbur G.—*The Coal Fields of Ohio.*—Coll'y Engr., May,1913; p 544; 3500 w*; 35c.

Butler, J. E.—*A Bath House Proposition.* —Coll'y Engr., April,1913; p 481; 600 w*; 35c.

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Carr, U. U.—*A Modern Mine Ventilating Plant.*—Coal Age, Feb.22,1913; p. 287; 2000 w*; 20c.

Clark, H. H.—*Use of Electricity in Mines.* (Abstract of paper read before Am. Inst. El. Engrs.).—Coal & Coke Op'r, April24, 1913; p 301; 4000 w; 20c.

Clark, H. H., and Ilsley, L. C.—*Ignition of Mine Gases by the Filaments of Electric Lamps.* (Abstract from Bull. 52, U. S. Bureau of Mines).—Ir. & C. Tr. Rev., London, May23,1913; p 848; 2800 w*; 35c.

Clarke, Henry.—*Modern Surface Equipment of Coal Mines.* (Paper read before Vancouver, B. C., Chamber of Mines).—Mg. & Eng. Rec., B. C., Feb.,1913; p 119; 3500 w*; 35c.

Corkhill, E. T.—*Mining Accidents in Ontario in* 1912.—Bull. No. 13 Ontario Bureau of Mines; pp 51; 25c.

Cornet, F. C.—*Special Ventilation by Air Pipes.*—Coal Age, Dec.14,1912; p. 825; 1000 w; 20c.

Coxe, Edw. H.—*Central Washer of the Alabama Fuel & Iron Co.*—Coal Age, Feb.22,1913; p. 301; 900 w*; 25c.

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Crooks, William, and "A Miner".—*Post Timbering at the Working Face* (Letters). —Coal Age, March15,1913; p 421; 1150 w; 20c.

Crosby, F. B.—*Alternating-Current Motors for the Economic Operation of Mine Fans.*—Proceedings Am. Inst. Elect. Engrs., April,1913; p 975; pp 14*; $1. Coal Age, May24,1913; p 801; 4500 w*; 20c.

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CHAPTER IX.

Petroleum and Natural Gas.

PETROLEUM AND OILS

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CHAPTER XII.

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MINES AND MINING (b*).

CHAPTER XIII.

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MILL AND MILLING.

CHAPTER XIV

SAMPLING

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CHEMISTRY AND ASSAYING.

CHAPTER XV.

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METALLURGY.

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POWER AND MACHINERY.*

CHAPTER XVII.

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PART III.

MISCELLANEOUS.*

CHAPTER XVIII.

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Authors' Index

C

D

E

F

G

H

M

S

T

U

V

W

Y

Z

Subject Index

E

F

G

H

I

L

M

N

O

P

Q

R

S

T

U

V.

W

Z

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